

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-25 (canceled)

Claim 26 (new). A method for preparing a water-dispersible liquid vitamin food additive for animals, said food additive being substantially free of water, said method comprising the steps of:

sequentially adding, under agitation,

- (a) from 61% to 90% by weight of a vitamin component in from 1% to 12% of an oil, said vitamin component being selected from the group consisting of:
 - (i) one or more precursors of vitamin A,
 - (ii) one or more precursors of vitamin E,
 - (iii) a mixture of one or more precursors of vitamin A and one or more precursors of vitamin E,
 - (iv) a mixture of one or more precursors of vitamin A and vitamin D3,
 - (v) a mixture of one or more precursors of vitamin E and vitamin D3, and
 - (vi) a mixture of one or more precursors of vitamin A, one or more precursors of vitamin E and vitamin D3;
 - (b) one or more veterinarily acceptable emulsifiers;
 - (c) from 2% to 10% of a C1 to C6 alkyl lactate;
 - (d) from 2% to 10% of a C2 to C6 mono-hydroxy alcohol;
- and mixing until homogeneous.

Claim 27 (new). The method of claim 26, further comprising up to 5% of a stabilizer, said stabilizer being added after the emulsifier (b) is added and before the alkyl lactate (c) is added, or after the alkyl lactate (c) is added and before the mono-hydroxy alcohol (d) is added.

Claim 28 (new). The method of claim 27, wherein the ratio of the alkyl lactate (c) to the mono-hydroxy alcohol (d) is from 1:1 to 3:1.

Claim 29 (new). The method of claim 28, wherein the ratio of the alkyl lactate (c) to the mono-hydroxy alcohol (d) is from 1.5:1 to 2.8:1.

Claim 30 (new). The method of claim 26, wherein the one or more emulsifiers (b) is a non-ionic surfactant selected from the group consisting of polyethylene glycol esters and ethoxylated sorbitan fatty esters.

Claim 31 (new). The method of claim 26, wherein the alkyl lactate (c) is selected from the group consisting of methyl lactate, ethyl lactate, n-propyl lactate, iso-propyl lactate, n-butyl lactate, sec-butyl lactate, tert-butyl lactate, n-pentyl lactate, n-hexyl lactate and other isomeric forms thereof.

Claim 32 (new). The method of claim 26, wherein the oil of component (a) is a vegetable oil selected from the group consisting of soybean oil, corn oil, canola oil and peanut oil.

Claim 33 (new). The method of claim 26, wherein the component (a) is dl-alpha-tocopheryl acetate in oil.

Claim 34 (new). The method of claim 26, wherein the component (a) is the retinyl propionate in canola oil.

Claim 35 (new). The method of claim 26, wherein the component (a) is the retinyl propionate in canola oil and the vitamin D3 in oil.

Claim 36 (new). The method of claim 26, wherein the component (a) is the vitamin D3 in oil, the dl-alpha-tocopherol in oil and retinyl propionate in canola oil.

Claim 37 (new). The method of claim 26, wherein the viscosity of the food additive is from 1000 cP to 10,000 cP at 0°C.

Claim 38 (new). The method of claim 26, wherein component (b) is added in an amount from 5% to 50% of one or more veterinarily acceptable emulsifiers.

Claim 39 (new). The method of claim 26, wherein from 61% to 82% by weight of said vitamin component is added.

Claim 40 (new). The method of claim 26, wherein from 61% to 77% by weight of said vitamin component is added.

Claim 41 (new). The method of claim 26, wherein from 77% to 82% by weight of said vitamin component is added.

Claim 42 (new). The method of claim 26, wherein from 61% to 85% by weight of said vitamin component is added.

Claim 43 (new). The method of claim 26, wherein from 77% to 85% by weight of said vitamin component is added.

Claim 44 (new). The method of claim 26, wherein 61% by weight of said vitamin component is added

Claim 45 (new). The method of claim 26, wherein 77% by weight of said vitamin component is added.

Claim 46 (new). The method of claim 26, wherein 82% by weight of said vitamin component is added.

Claim 47 (new). A method for dispersing a water-dispersible liquid vitamin food additive for animals, said food additive being substantially free of water, said method comprising the steps of:

preparing the food additive by sequentially adding, under agitation,

- (a) from 61% to 90% by weight of a vitamin component in from 1% to 12% of an oil, said vitamin component being selected from the group consisting of:
 - (i) one or more precursors of vitamin A,
 - (ii) one or more precursors of vitamin E,
 - (iii) a mixture of one or more precursors of vitamin A and one or more precursors of vitamin E,
 - (iv) a mixture of one or more precursors of vitamin A and vitamin D3,
 - (v) a mixture of one or more precursors of vitamin E and vitamin D3,
 - and
 - (vi) a mixture of one or more precursors of vitamin A, one or more precursors of vitamin E, and vitamin D3;

- (b) one or more veterinarily acceptable emulsifiers;
- (c) from 2% to 10% of C1 to C6 alkyl lactate;
- (d) from 2% to 10% of a C2 to C6 mono-hydroxy alcohol; and
mixing until homogeneous; and

dispersing said food additive into water within 2 minutes when added at a ratio of said food additive to water from 1g/kg to 100 g/kg.

Claim 48 (new). The method of claim 47, comprising dispersing said food additive into water within 20 seconds when added at a ratio of said food additive to water from 1g/kg to 100 g/kg.

Claim 49 (new). The method of claim 47, wherein component (b) is added in an amount from 5% to 50% of one or more veterinarily acceptable emulsifiers.

Claim 50 (new). A method for dispersing a water-dispersible liquid vitamin food additive for animals comprising the step of dispersing a food additive prepared according to the method of claim 26 into water within two minutes when added at a ratio of said food additive to water of from 1 g/kg to 100g.kg.

Claim 51 (new). The method of claim 50, comprising dispersing said food additive into water within 20 seconds when added at a ratio of said food additive to water from 1g/kg to 100 g/kg.